



SEQUENCE LISTING

<110> Efendic, Suad

<120> USE OF GLP-1 OR ANALOGS IN TREATMENT OF STROKE

<130> X-11158_US

<140> US 09/400,802

<141> 1999-09-22

<150> US 60/101719

<151> 1998-09-24

<160> 35

<170> PatentIn version 3.0

<210> 1

<211> 31

<212> PRT

<213> Homo sapiens

<400> 1

His	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	

Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Gly	Arg	Gly
			20					25					30	

<210> 2

<211> 28

<212> PRT

<213> Artificial

<220>

<223> synthetic construct

<400> 2

His	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	

Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys
			20					25			

<210> 3

<211> 29

<212> PRT

<213> Artificial

<220>

<223> synthetic construct

<400> 3

His	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly
 20 25

<210> 4
 <211> 30
 <212> PRT
 <213> Homo sapiens

<400> 4

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg
 20 25 30

<210> 5
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<220>
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<400> 5

His Val Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 6
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<220>
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<400> 6

His Ala Gln Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 7
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<220>
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 <222> (3)..(3)
 <223> Xaa at position 3 is D-Gln

<400> 7

His Ala Xaa Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 8

<211> 31

<212> PRT

<213> Artificial

<220>

<223> synthetic construct

<400> 8

His Ala Glu Gly Thr Phe Thr Ser Asp Thr Ser Lys Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 9

<211> 31

<212> PRT

<213> Artificial

<220>

<223> synthetic construct

<400> 9

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Lys Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 10

<211> 28

<212> PRT

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<221> VARIANT

<222> (20)..(20)

<223> Xaa at position 20 is D-Lys, Gly, Ser, Ala, Leu, Ile, Gln, Arg, D-Arg and Met

<220>

<221> VARIANT

<222> (28)..(28)

<223> Xaa at position 28 is D-Lys, Gly, Ser, Ala, Leu, Ile, Gln,
Arg, D-Arg and Met

<400> 10

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Xaa
20 25

<210> 11

<211> 29

<212> PRT

<213> Artificial

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<223> synthetic construct

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<221> VARIANT

<222> (20)..(20)

<223> Xaa at position 20 is D-Lys, Gly, Ser, Ala, Leu, Ile, Gln,
Arg, D-Arg and Met

<220>

<221> VARIANT

<222> (28)..(28)

<223> Xaa at position 28 is D-Lys, Gly, Ser, Ala, Leu, Ile, Gln,
Arg, D-Arg and Met

<400> 11

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Xaa Gly
20 25

<210> 12

<211> 31

<212> PRT

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<223> synthetic construct

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<221> VARIANT

<222> (20)..(20)

<223> Xaa at position 20 is D-Lys, Gly, Ser, Ala, Leu, Ile, Gln,
Arg, D-Arg and Met

<220>

<221> VARIANT

<222> (28)..(28)

<223> Xaa at position 28 is D-Lys, Gly, Ser, Ala, Leu, Ile, Gln,
Arg, D-Arg and Met

<220>

<221> VARIANT

<222> (30)..(30)

<223> Xaa at position 30 is Lys, D-Lys, Gly, Ser, Ala, Leu, Ile,
Gln, Met and D-Arg

<400> 12

His	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	

Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Gly	Xaa	Gly
			20					25					30	

<210> 13

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<212> PRT

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<222> (10)..(10)

<223> Xaa at position 10 is Tyr or Val

<220>

<221> VARIANT

<222> (12)..(12)

<223> Xaa at position 12 is Lys or Ser

<220>

<221> VARIANT

<222> (15)..(15)

<223> Xaa at position 15 is Asp or Glu

<220>

<221> VARIANT

<222> (16)..(16)

<223> Xaa at position 16 is Ser or Gly

<220>

<221> VARIANT

<222> (17)..(17)

<223> Xaa at position 17 is Arg or Gln

<220>

<221> VARIANT

<222> (18)..(18)

<223> Xaa at position 18 is Arg or Ala

<220>

<221> VARIANT

<222> (20)..(20)

<223> Xaa at position 20 is Gln or Lys

<400> 13

His	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Xaa	Ser	Xaa	Tyr	Leu	Xaa	Xaa
1				5					10					15	

Xaa	Xaa	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Gly	Arg	Gly
			20					25					30	

<210> 14

<211> 31

<212> PRT

<213> Artificial

<220>

<223> synthetic construct

<400> 14

Tyr	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	

Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Gly	Arg	Gly
			20					25					30	

<210> 15

<211> 31

<212> PRT

<213> Artificial

<220>

<223> synthetic construct

<220>

<221> VARIANT

<222> (1)..(1)

<223> Xaa at position 1 is N-acetyl-His

<400> 15

Xaa	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	

Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Gly	Arg	Gly
			20					25					30	

<210> 16

<211> 31

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<220>
 <223> synthetic construct

<220>
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 <222> (1)..(1)
 <223> Xaa at position 1 is N-isopropyl-His

<400> 16

Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 17
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<220>
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 <222> (2)..(2)
 <223> Xaa at position 2 is D-Ala

<400> 17

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 18
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<220>
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 <222> (3)..(3)
 <223> Xaa at position 3 is D-Glu

<400> 18

His Ala Xaa Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 19
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 <213> Artificial

<220>
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<400> 19

His Ala Asp Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 20
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<220>
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<220>
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 <222> (3)..(3)
 <223> Xaa at position 3 is D-Asp

<400> 20

His Ala Xaa Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 21
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 <212> PRT
 <213> Artificial

<220>
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<220>
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 <222> (4)..(4)
 <223> Xaa at position 4 is D-Phe

<400> 21

His Ala Glu Xaa Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 22
 <211> 31
 <212> PRT
 <213> Artificial

<220>
 <223> synthetic construct

<400> 22

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Ser
 1 5 10 15

Arg Arg Ala Gln Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 23
 <211> 31
 <212> PRT
 <213> Artificial

<220>
 <223> synthetic construct

<400> 23

His Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 24
 <211> 31
 <212> PRT
 <213> Artificial

<220>
 <223> synthetic construct

<220>
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 <222> (1)..(1)
 <223> Xaa at position 1 is His, D-histidine, desamino-histidine,
 2-amino-histidine, beta-hydroxy-histidine, homohistidine,
 alpha-fluormethyl-histidine, and alpha-methyl-histidine

<220>
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 <222> (2)..(2)
 <223> Xaa at position 2 is Ala, Gly, Val, Thr, Ile, and alpha-
 methyl-Ala

<220>
 <221> VARIANT
 <222> (15)..(15)

<223> Xaa at position 15 is Glu, Gln, Ala, Thr, Ser, and Gly

<220>

<221> VARIANT

<222> (21)..(21)

<223> Xaa at position 21 is Glu, Gln, Ala, Thr, Ser, and Gly

<220>

<221> VARIANT

<222> (31)..(31)

<223> Xaa at position 31 is Gly-OH or is absent

<400> 24

Xaa	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Xaa	Gly
1				5					10					15	

Gln	Ala	Ala	Lys	Xaa	Phe	Ile	Ala	Trp	Leu	Val	Lys	Gly	Arg	Xaa
			20					25					30	

<210> 25

<211> 30

<212> PRT

<213> Artificial

<220>

<223> synthetic construct

<400> 25

His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	

Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Gly	Arg
			20					25					30

<210> 26

<211> 31

<212> PRT

<213> Artificial

<220>

<223> synthetic construct

<220>

<221> VARIANT

<222> (3)..(3)

<223> Xaa at position 3 is acetyl-Lys

<400> 26

His	Ala	Xaa	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	

Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Gly	Arg	Gly
			20					25					30	

<210> 27
 <211> 31
 <212> PRT
 <213> Artificial

<220>
 <223> synthetic construct

<400> 27

His Ala Thr Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 28
 <211> 31
 <212> PRT
 <213> Artificial

<220>
 <223> synthetic construct

<220>
 <221> VARIANT
 <222> (3)..(3)
 <223> Xaa at position 3 is D-Thr

<400> 28

His Ala Xaa Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 29
 <211> 31
 <212> PRT
 <213> Artificial

<220>
 <223> synthetic construct

<400> 29

His Ala Asn Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 30
 <211> 31
 <212> PRT
 <213> Artificial

<220>
 <223> synthetic construct

<220>
 <221> VARIANT
 <222> (3)..(3)
 <223> Xaa at position 3 is D-Asn

<400> 30

His Ala Xaa Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 31
 <211> 31
 <212> PRT
 <213> Artificial

<220>
 <223> synthetic construct

<400> 31

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Arg Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 32
 <211> 31
 <212> PRT
 <213> Artificial

<220>
 <223> synthetic construct

<400> 32

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15

Gln Arg Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 20 25 30

<210> 33
 <211> 28
 <212> PRT
 <213> Artificial

<220>
 <223> synthetic construct

<220>
 <221> VARIANT
 <222> (28)..(28)

<223> Xaa at position 28 is Lys and Lys-Gly

<400> 33

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Xaa
20 25

<210> 34

<211> 28

<212> PRT

<213> Artificial

<220>

<223> synthetic construct

<220>

<221> VARIANT

<222> (28)..(28)

<223> Xaa at position 28 is Lys, Lys-Gly, Lys-Gly-Arg

<400> 34

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Xaa
20 25

<210> 35

<211> 31

<212> PRT

<213> Artificial

<220>

<223> synthetic construct

<220>

<221> VARIANT

<222> (1)..(1)

<223> Xaa at position 1 is 4-imidazopropionyl, 4-imidazoacetyl,
4-imidazo-alpha, or alpha dimethyl-acetyl

<220>

<221> VARIANT

<222> (20)..(20)

<223> Xaa at position 20 is Lys or Arg

<220>

<221> VARIANT

<222> (31)..(31)

<223> Xaa at position 31 is Gly or absent

<400> 35

Xaa	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	

Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Gly	Arg	Xaa
			20					25					30	